

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

ALSEA VALLEY ALLIANCE, et al.,

Case No. 06-6093-HO

Plaintiffs,

ORDER

v.

CONRAD C. LAUTENBACHER, et al.,

Defendants.

Plaintiffs challenge decisions by the National Marine Fisheries Service (NMFS) to list 16 population segments of Pacific salmon as threatened or endangered under the Endangered Species Act (ESA). Plaintiffs further challenge NMFS's protective regulation for salmon populations listed as threatened. The complaint alleges that NMFS violated the ESA and Administrative Procedure Act (APA) by (1) distinguishing between hatchery stocks and "natural" salmon populations in its listing process, (2) promulgating a protective regulation that

distinguishes between hatchery stocks and natural populations, and (3) including salmon populations that do not interbreed in listed population segments. Plaintiffs and plaintiff-intervenors filed motions for summary judgment. Defendant-intervenors and federal defendants filed cross motions for summary judgment.

NMFS preliminarily considered the viability of natural salmon populations within the geographic boundaries of historical listed population segments. NMFS then considered the extinction risk of population segments comprised of natural salmon populations and hatchery stocks, before making its final listing determinations. The ESA does not prohibit this approach. In the absence of a challenge to NMFS's scientific conclusions, the ESA does not require that protective regulations treat natural populations and hatchery stocks equally. In the absence of a challenge to NMFS's scientific conclusions, NMFS's determined population segments for listing under a permissible construction of the ESA's definition of "species." Therefore, plaintiffs' motion for summary judgment is denied; federal defendants' cross motion for summary judgment is granted; and defendant-intervenors' cross motion for summary judgment is granted. Plaintiff-intervenors' motion for summary judgment is denied as moot.<sup>1</sup>

---

<sup>1</sup>The court previously dismissed the complaint in intervention for lack of subject matter jurisdiction.

### Background

\_\_\_\_\_The ESA requires NMFS to publish lists of endangered<sup>2</sup> and threatened<sup>3</sup> species in the Federal Register. 16 U.S.C. §§ 1533(a)(1), (c)(1). "The term 'species' includes any subspecies of fish . . . and any distinct population segment of any vertebrate fish . . . which interbreeds when mature." 16 U.S.C. § 1532(16). The term "distinct population segment" (DPS) is not defined in the ESA. NMFS considers a stock of Pacific salmon as a DPS if it "represents an evolutionarily significant unit (ESU) of the biological species." 58 Fed.Reg. 58,612, 58,618 (Nov. 20, 1991).

A stock must satisfy two criteria to be considered an ESU:

- (1) It must be substantially reproductively isolated from other conspecific population units; and
- (2) It must represent an important component in the evolutionary legacy of the species.

\* \* \*

Insights into the extent of reproductive isolation can be provided by movements of tagged fish, recolonization rates of other populations, measurements of genetic differences between populations, and evaluations of the efficacy of natural barriers. Each of these methods has its limitations.

58 Fed.Reg. at 58,618.

---

<sup>2</sup>"The term 'endangered species' means any species which is in danger of extinction throughout all or a significant portion of its range . . ." 16 U.S.C. § 1532(6).

<sup>3</sup>"The term 'threatened species' means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." 16 U.S.C. § 1532(20).

The ESA requires that NMFS issue "such regulations as [it] deems necessary and advisable to provide for the conservation of [threatened] species." 16 U.S.C. § 1533(d).

The terms "conserve", "conserving", and "conservation" mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

16 U.S.C. § 1532(3).

The court previously held unlawful and set aside NMFS's listing decision for the Oregon Coast coho salmon under the agency's Interim Policy on Artificial Propagation of Pacific Salmon under the Endangered Species Act. Alsea Valley Alliance v. Evans (Alsea I), 161 F. Supp. 2d 1154 (D. Or. 2001). The court held that NMFS's decision not to list nine hatchery stocks determined by NMFS to be part of the Oregon Coast ESU/DPS violated the ESA's prohibition on listing distinctions below that of a DPS of a species. Id. at 1162.

Following the Alsea I decision, NMFS published a "Policy on the Consideration of Hatchery-Origin Fish in Endangered Species Act Listing Determinations for Pacific Salmon and Steelhead" (Hatchery Policy) 70 Fed.Reg. 37,204, 37,215 (June 28, 2005), and

a final rule including listing determinations for 16 ESUs of West Coast salmon and amendments to protective regulations. Id. at 37,160.

The Hatchery Policy provides direction to NMFS personnel for considering hatchery-origin fish in making ESA listing determinations for Pacific salmon and steelhead. Id. at 37,215. The Hatchery Policy includes the following features, among others.

In delineating an ESU to be considered for listing, NMFS will identify all components of the ESU, including populations of natural fish (natural populations) and hatchery stocks<sup>4</sup> that are part of the ESU. Hatchery stocks with a level of genetic divergence relative to the local natural population(s) that is no more than what occurs within the ESU: (a) are considered part of the ESU; (b) will be considered in determining whether an ESU should be listed under the ESA; and (c) will be included in any listing of the ESU.

Status determinations for Pacific salmon and steelhead ESUs will be based on the status of the entire ESU. In assessing the status of an ESU, NMFS will apply this policy in support of the conservation of naturally-spawning salmon and the ecosystems upon which they depend, consistent with section 2 (b) of the ESA (16 U.S.C. 1531(b)). Hatchery fish will be included in assessing an ESU's status in the context of their contributions to conserving natural self-sustaining populations.

---

<sup>4</sup>The term "natural populations" refers to populations whose members originate from spawning in the wild, "recognizing that these fish may be the progeny of naturally-spawned and hatchery-origin fish in varying proportions." 70 Fed.Reg. at 37,214. The term "hatchery stocks" refers to a "genetic lineage of hatchery fish propagated at one or more hatchery facilities, recognizing that a hatchery stock can have a wide range of gene flow with populations of natural-origin fish . . ." Id.

Status determinations for Pacific salmon and steelhead ESUs generally consider four key attributes: abundance; productivity; genetic diversity; and spatial distribution. The effects of hatchery fish on the status of an ESU will depend on which of the four key attributes are currently limiting the ESU, and how the hatchery fish within the ESU affect each of the attributes. The presence of hatchery fish within the ESU can positively affect the overall status of the ESU, and thereby affect a listing determination, by contributing to increasing abundance and productivity of the natural populations in the ESU, by improving spatial distribution, by serving as a source population for repopulating unoccupied habitat, and by conserving genetic resources of depressed natural populations in the ESU. Conversely, a hatchery program managed without adequate consideration of its conservation effects can affect a listing determination by reducing adaptive genetic diversity of the ESU, and by reducing the reproductive fitness and productivity of the ESU. In evaluating the effect of hatchery fish on the status of an ESU, the presence of a long-term hatchery monitoring and evaluation program is an important consideration.

Many hatchery programs are capable of producing more fish than are immediately useful in the conservation and recovery of an ESU and can play an important role in fulfilling trust and treaty obligations with regard to harvest of some Pacific salmon and steelhead populations. For ESUs listed as threatened, NMFS will, where appropriate, exercise its authority under section 4(d) of the ESA to allow the harvest of listed hatchery fish that are surplus to the conservation and recovery needs of the ESU, in accordance with approved harvest plans.

Id. at 37,214-16, ¶¶ 2-5.

Prior to publishing its listing determinations, NMFS completed status reviews for 27 ESUs, including the 16 ESUs at issue in this proceeding.

[The] NMFS'[s] Pacific Salmonid Biological Review Team (BRT) "reviewed the viability and extinction risk of naturally spawning populations in the . . . ESUs . . .

The BRT evaluated the risk of extinction based on the performance of the naturally spawning populations in each of the ESUs under the assumption that present conditions will continue into the future. The BRT did not explicitly consider artificial propagation in its evaluations. The BRT assessed ESU-level extinction risk (as indicated by the viability of the naturally spawning populations at . . . the individual population level, then at the overall ESU level.

\* \* \*

Individual populations were evaluated according to . . . abundance, productivity, spatial structure (including connectivity), and diversity.

\* \* \*

After reviewing all relevant biological information for the populations in a particular ESU, the BRT ascribed an ESU-level risk score for each of the[se] . . . [four] factors.

\* \* \*

In general, [the BRT's] evaluations did not include consideration of the potential contribution of hatchery stocks to the viability of ESUs, or evaluate efforts being made to protect the species. Therefore, the BRT's findings are not recommendations regarding listing.

\* \* \*

To assist in determining the ESU membership of individual hatchery stocks, a Salmon and Steelhead Hatchery Assessment Group (SSHAG) . . . evaluated the best available information describing the relationships between hatchery stocks and natural ESA-listed salmon and anadromous *O. mykiss* populations in the Pacific Northwest and California. The SSHAG produced a report . . . describing the relatedness of each hatchery stock to the natural component of an ESU on the basis of stock origin and the degree of known or inferred genetic divergence between the hatchery stock and the local natural population(s). [The NMFS] used the information presented in the SSHAG Report to determine the ESU membership of those hatchery stocks within the historical geographic range of a given ESU. [The NMFS's] assessment of individual hatchery stocks and . . . findings regarding their ESU membership are detailed in the Salmonid Hatchery Inventory and Effects Evaluation [SHIEE] Report (NMFS, 2004b).

The assessment of the effects of ESU hatchery programs on ESU viability and extinction risk is also presented

in the [SHIEE] Report . . . The Report evaluates the effects of hatchery programs on the likelihood of extinction of an ESU on the basis of . . . abundance, productivity, spatial structure, and diversity[,] and how artificial propagation efforts within the ESU affect those factors. In April 2004, [the NMFS] convened an Artificial Propagation Evaluation Workshop [APEW] of Federal scientists and managers with expertise in salmonid artificial propagation. The [APEW] reviewed the BRT's findings . . ., evaluated the [SHIEE] Report . . ., and assessed the overall extinction risk of ESUs with associated hatchery stocks. The discussions and conclusions of the [APEW] are detailed in a workshop report . . . In this document, the extinction risk of an ESU "in-total" refers to the assessed level of extinction risk after considering the contributions to viability by all components of the ESU (hatchery origin, natural origin, anadromous, and resident).

Id. at 37,162-63.

Hatchery stocks are included in an ESU if it is determined that they are not reproductively isolated from populations in the ESU, and they are representative of the evolutionary legacy of the ESU . . . Hatchery stocks are considered representative of the evolutionary legacy of an ESU, and hence included in the ESU, if it is determined that they are genetically no more than moderately divergent from the natural population (see final Hatchery Listing Policy . . .). If a hatchery stock is more divergent from the local natural population, this indicates that the hatchery stock is reproductively isolated from the ESU.

Id. at 37,174.

As part of the final rule, NMFS issued "clarifying amendments" to protective regulations that apply the amended take prohibitions to all threatened ESUs. Id. at 37,194-95. Under the final rule, NMFS "will apply Section 1533(d) protections to natural and hatchery fish with an intact adipose fin, but not to listed hatchery fish that have had their adipose fin removed



prior to release into the wild." Id. at 37,194.

Not all hatchery stocks considered to be part of listed ESUs are of equal value for use in conservation and recovery. Certain ESU hatchery stocks may comprise a substantial portion of the genetic diversity remaining in a threatened ESU, and thus are essential assets for ongoing and future recovery efforts. If released with adipose fins intact, hatchery fish in these populations would be afforded protections under the amended 4(d) protective regulations. NMFS, however, may need to approve the take of listed hatchery stocks to manage the number of naturally spawning hatchery fish to limit potential adverse effects on the local natural population(s). Other hatchery stocks, although considered to be part of a threatened ESU, may be of limited or uncertain conservation value at the present time. Artificial propagation programs producing within-ESU hatchery populations could release adipose-fin-clipped fish, such that protections under 4(d) would not apply, and these hatchery fish could fulfill other purposes (e.g., fulfilling Federal trust and tribal treaty obligations) while preserving all future recovery options.

Id. at 37,195.

#### Discussion

The court may direct that summary judgment be granted to either party based upon review of the administrative record. Lands Council v. Powell, 379 F.3d 738, 743 (9<sup>th</sup> Cir. 2004), amended by 395 F.3d 1019 (9<sup>th</sup> Cir. 2005).

NMFS initially argued that plaintiffs lack standing. In response, plaintiffs submitted declarations. By not addressing the declarations in its reply memorandum, NMFS appears to have abandoned this argument. Based in part on the declarations, the court finds that plaintiffs have standing.

Before addressing their claims, the court notes plaintiffs'

contention that analysis of NMFS's scientific conclusions regarding genetics and biological studies is not required, and plaintiffs' admonition that the court "stay focused on the ESA's clear terms and Congress' intent and rule that '[l]isting distinctions below that of subspecies or a DPS of a species are not allowed under the ESA.'" Pl's Memo. at 13.

#### I. Status Reviews

Plaintiffs argue that Section 1533(b)(1)(A)<sup>5</sup> and Alsea I prohibit separate consideration of natural populations and hatchery stocks during the status review process.

There is no dispute but that NMFS conducted its status reviews in a manner consistent with the Hatchery Policy. Plaintiffs and NMFS dispute whether the Hatchery Policy is entitled to deferential review under Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 833-34 (1984). Declining to apply deferential Chevron review, a

---

<sup>5</sup>The Secretary shall make [threatened and endangered] determinations . . . solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction, or on the high seas.

16 U.S.C. § 1533(b)(1)(A).

district court recently held unlawful and set aside the Hatchery Policy for deficiencies not alleged by plaintiffs in this case. Trout Unlimited v. Lohn, 2007 WL 1795036, \*\*13, 23 (W.D. Wash.).

Regardless of the validity of the Hatchery Policy and degree of deference owed to the policy, nothing in Section 1533(b)(1)(A) or Alsea I prohibits the aspects of the status review process challenged by plaintiffs in this case. Congress did not specify how NMFS should conduct a species review. While reviews commenced with the BRT's evaluation of natural populations within historic ESUs, the listed ESUs include hatchery stocks. NMFS made its listing determinations after assessing the effects of artificial propagation programs and existing protection efforts. 70 Fed. Reg. 37,179-93. Plaintiffs do not contend that NMFS improperly excluded any hatchery populations from a listed ESU, as occurred in Alsea I.

## II. Protective Regulation

Plaintiffs next allege that NMFS's protective regulation violates the ESA by treating hatchery stocks differently than natural populations, insofar as the regulation permits the take of hatchery fish, but not "natural" members of the same ESU. As discussed above, NMFS applies Section 1533(d) protective regulations to threatened natural and hatchery salmon with intact adipose fins, but not to threatened hatchery salmon with clipped adipose fins.

Plaintiffs find a prohibition to disparate treatment of hatchery stocks in Section 1533(d)'s direction to the Secretary to issue regulations for the conservation of threatened "species," which in this case include hatchery stocks in listed ESUs. Plaintiffs find a prohibition on taking members of threatened hatchery stock in the ESA's definition of "conversation," which may include regulated taking only "in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved," and in legislative history.

"[C]onservation might include authority for carefully controlled taking of surplus members of the species. To state that this possibility exists, however, in no way is intended to suggest that this extreme situation is likely to occur - it is just to say that the authority exists in the unlikely event that it ever becomes needed.

Conf. Rep. No. 740, 93<sup>rd</sup> Cong., 1<sup>st</sup> Sess. 23, reprinted in 1973 U.S. Code Cong., 7 Admin. News.

Plaintiffs' authority does not require NMFS to treat natural populations and hatchery stocks equally. Plaintiffs do not challenge NMFS's finding that hatchery fish may contribute to or detract from the need to list an ESU, depending on the circumstances. 70 Fed.Reg. 37,215, ¶ 4. While the definition of conservation contemplates regulated taking in an extreme situation, the Secretary is not required to prohibit taking of threatened species. 16 U.S.C. § 1533(d) (providing that

Secretary may prohibit acts, including taking, prohibited under Section 1538(a)(1)). To the extent Section 1533(d) and NMFS's regulation may be ambiguous when read together with the definition of conservation set forth at 16 U.S.C. § 1532(3), NMFS's interpretations of the statute and regulation are reasonable and entitled to deference.

### III. Over-inclusive ESUs

Finally, plaintiffs allege that NMFS's listed ESUs include salmon populations that do not interbreed when mature, and therefore do not qualify as species eligible for listing. See 16 U.S.C. § 1532(16) ("The term 'species' includes any distinct population segment of vertebrate fish . . . which interbreeds when mature."). Plaintiffs argue that populations within the same ESU do not interbreed because they spawn at different times in different locations. As examples, plaintiffs point to (1) the Puget Sound Chinook ESU, with 22 populations, including early and late spawners, distributed over an area approximately 150 miles long and 135 miles wide, and (2) the Lower Columbia River Chinook ESU, with 31 populations, including spring and fall spawners, distributed over an area approximately 130 miles long and 120 miles wide. See 70 Fed. Reg. at 37,175-76. Plaintiffs contend there is no evidence that widely-dispersed populations interbreed with one another.

NMFS first asserts that plaintiffs failed to exhaust this

argument. Plaintiffs included this argument in their 60-day notice. Review of this claim is not precluded by any failure of plaintiffs to raise the claim during the public comment period. See Silver v. Babbitt, 924 F. Supp. 976 (D. Ariz. 1995).

Substantively, defendants argue that the words "interbreeds when mature" reflect Congress's intent that members of the same species, subspecies or distinct population segment be capable of interbreeding when mature. Defendants further argue that NMFS accounts for interbreeding between populations within ESUs by requiring that ESUs be reproductively isolated from other conspecific populations. NMFS's published responses to comments to the proposed ESU policy reflect this position. 56 Fed.Reg. 58,614 ("The reproductive isolation criterion is consistent with the definition of species in the ESA which includes 'any distinct population . . . which interbreeds when mature.'"); 56 Fed.Reg. 58,618 (a stock will be considered a "species" under the ESA if it represents an ESU).

Defendant's arguments are well taken. The words "distinct population segment . . . which interbreeds when mature," are ambiguous. NMFS's published position is that the reproductive isolation criterion for inclusion in an ESU can be measured by movements of tagged fish, recolonization rates, genetic differences between populations and evaluations of the efficacy of natural barriers. Alsea I, 161 F. Supp. 2d at 1158.

Defendants supplemented the record with evidence that NMFS has considered, in addition to genetic factors, existing estimates of stray rates over distances, the timing of migration and spawning runs and the related concept of "temporal straying." AR 1340 at 40; AR 1471 at 34-37, 41-45.

Plaintiffs' position that actual interbreeding is required would prohibit the agencies from listing the United States population of an animal that is abundant elsewhere in the world. Congress intended otherwise. Alsea I, 161 F. Supp. 2d at 1162, n. 5 (quoting S. Rep. No. 96-151). The court previously upheld NMFS's interpretation of what constitutes a "distinct population segment," the "ESU and the factors used to define it, geography and genetics[.]" Id. at 1161-62 (applying Chevron deference). To the extent Alsea I does not resolve this claim, the court holds that NMFS's interpretation of what constitutes a "distinct population segment of vertebrate fish . . . which interbreeds when mature" is likewise within permissible limits under the ESA.

#### Conclusion

Based on the foregoing, plaintiffs' motion for summary judgment [#32] is denied; defendant-intervenors' cross motion for  
 ///

///

summary judgment [#56] is granted; federal defendants' cross motion for summary judgment [#62] is granted; and plaintiff-intervenors' motion for summary judgment [#85] is denied as moot. This action is dismissed.

IT IS SO ORDERED.

DATED this 14<sup>th</sup> day of August, 2007.

s/ Michael R. Hogan  
United States District Judge